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ABSTRACT

Georgia's Gainesville College conducted a study to determine the relationship between students' remedial needs and their grades in two required algebra courses: Math 104, introductory algebra for non-science majors, and Math 151, introductory algebra for science and math majors. Grades for the first attempt in these courses were collected for 6,130 students between fall 1992 and fall 1997, including 1,642 who were required to take the college's remedial reading course. Further, for students who were required to take remedial reading, outcomes were examined for the 490 who took the course before taking introductory algebra, the 187 who took both courses concurrently, and the 7 who took the reading course after taking introductory algebra. The study found no significant benefits for students who took the developmental reading course before introductory algebra, and in fact, showed slightly higher "C" or better pass rates for students taking the courses at the same time. Further, students taking the courses concurrently were less likely to withdraw than those who completed the reading course first, although withdrawal rates were relatively high for both groups. The majority of the text are appended data tables illustrating algebra pass rates by quarter. (BY)C

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Relationship of Remedial Reading Needs to First-Attempt Grade Distributions in Introductory College Algebra at a Two-Year College: Fall 1992 to Fall 1997

John Hamilton

Gainesville College
Office of Planning and Institutional Research

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Relationship of Remedial Reading Needs to First-Attempt Grade Distributions in Introductory College Algebra at a Two-Year College: Fall 1992 to Fall 1997

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March 1998

Recommendation

Most students are probably best-advised to take Developmental Studies Reading (DS Reading or DSR) prior to their first-attempt at College Algebra (Math 104 or Math 151), but students working with an advisor who are aware of the difficulties and who are obviously beyond their DS Mathematics (if required) should be allowed to take DS Reading and College Algebra concurrently if they elect to do so. The option of taking DS Reading along with College Algebra takes on added significance when one considers the conversion of the college calendar to the semester system as of the fall of 1998 which allows only two opportunities per academic year to enroll in courses as compared to three under the quarter system.

Study Groups

- Require DSR - Students who required Developmental Studies Reading (DSR).
- Regular Status (no DSR) - Students who did not have to take DS Reading.
- Exit DSR before their first attempt at College Algebra - Students who exited DS Reading after one or more attempts and during a quarter subsequent to exiting DSR they enrolled in College Algebra for the first time.
- First Attempt at DSR along with College Algebra - Students took their first DSR course and their first College Algebra course during the same quarter. Some of the students did not pass the DS Reading course on their first attempt.
- First Attempt at DSR after taking College Algebra - Students who required DSR, but attempted College Algebra for the first time before enrolling at a later quarter in their first attempt at DSR.

Study Notes

Developmental Studies Reading (DS Reading) is a remedial or learning support class for which no institutional credit towards a degree is given. DSR is taken by some students if they do not score well on a placement test. All students must take one or the other of two introductory college algebra courses: Math 104 and Math 151. Math 104 is designed primarily for non-science majors and non-mathematics majors and is considered by students as the easier of the two introductory algebra courses. Math 104 cannot be used as a prerequisite for trigonometry or calculus. Math 151 is precalculus algebra designed primarily for science and mathematics majors.

The five-year study period went from the fall of 1992 to the end of the fall of 1997. The total number of students in the database was 6,130. Of those, 1,642 (26.8%, 1642/6130) were required DS Reading while 4,488 (73.2%) did not. Of the 1,642 students who required DS Reading, 470 (28.6%, 470/1642) attempted Math 104 at least once and 272 (16.6%, 272/1642) attempted Math 151 at least once.

Attached data tables show the quarter-by-quarter grade distributions for the first-attempt at College Algebra (Math 104/151) for the groups defined above and for the first-attempt at DS Reading. Pass rates based on grades of 'C' or better and the total number of students who

attempted a given course with grades of A, B, C , D (IP), F, WF, (U), and W. Grades of IP (In Progress, similar to a D) and U (unsatisfactory progress resulting in a one-quarter suspension) are DS-specific and defined in more detail in the College's catalog. Note that the number of students who withdrew (W) from a course is included in the denominator. Grades for audit (K), credit by examination (K), and incomplete (I) were not used in the analysis. Only first-attempt grades at DSR (except the Exit DSR group) or Math courses were used in study. If a student took both Math 104 and Math 151, then only the first algebra course taken was used in the study.

Calculated Pass Rates

$$\frac{A + B + C}{A + B + C + D + F + WF + W + (IP + U)} * 100$$

Discussion

Enclosed are data tables showing the relationship between DS Reading and a student's first-attempt effort at College Algebra (Math 104 or Math 151). There does not seem to be any obvious benefit in exiting DS Reading prior to taking College Algebra as compared to taking DS Reading along with College Algebra. In fact, students who were enrolled in their first-attempt at DS Reading along with College Algebra during the same quarter showed higher 'C' or better pass rates in College Algebra (Math 104 - 71.2%, Math 151 - 63.9%) as compared to those who exited DS Reading (some required multiple attempts to do so) prior to taking their first College Algebra course (Math 104 - 56.2%, Math 151 - 30.4%). It should be noted that most students exit DS Reading before attempting College Algebra (N = 490) as compared to those that concurrently take DS Reading and College Algebra for the first time (N = 187). The data suggest that if a student working with an advisor feels confident enough to take College Algebra along with DS Reading they should be allowed to do so. In other words, there may be some self-selection occurring. Reading skills may be less an indicator of success in college-level math courses than readiness as measured by such indicators as DS mathematics needs and fulfillment of the state's CPC-mathemetics requirement in high school.

The two major student groups in the study - (1) DSR Exit before taking College Algebra and (2) First-Attempt at DSR along with First Attempt at College Algebra - may be different in ways not measured by the study. For example, it may be that some students who are willing to enroll for the first-time in both DS Reading and college-level math during the same quarter are stronger and more confident of their math skills than those who wait to take college algebra after they complete DS Reading. The study made no attempt to look at interactions between either of these groups of students and their DS Math needs. It might be that those who are willing to take DS Reading and College Algebra together are less likely to begin with DS Math, thus more likely to earn passing grades in College Algebra. There was a noticeable difference in withdrawal rates between the two groups with the DS Reading along with Math 104/151 group less likely to withdraw (104 - 13.5% W's, 151 - 22.9% W's) as compared to the group that completed DS Reading prior to their first attempt at College Algebra (104 - 25.5% W's, 151 - 41.1% W's).

Very few students (only 7 in five years) in the study enrolled for the first-time in a College Algebra course before taking DS Reading at least once. No conclusions can be made concerning this very small group of students. Conventional wisdom and anecdotal comments suggest, however, that it is not likely a responsible move on the part of the College to enroll

someone in a College Algebra course one or more quarters before their first-attempt at DS Reading.

Some observations

- First-time pass rates are higher for students starting without the need for DS Reading than those that place into DS Reading. This is especially true for those attempting Math 151 where about 60% of the regular placement students who did not need DS Reading passed on their first-attempt as compared to only 40% of those students with the DSR requirement.
- First-attempt pass rates are higher for Math 104 (65%) as compared to Math 151 (57%).
- The first-time pass rates for DS Reading across the five-year study period were 67 percent.
- Overall withdrawal rates for first-attempts at College Algebra courses are relatively high: Math 151 - 25.8% W's and Math 104 - 19.3% W's.
- 'C' or better pass rates for the fall of 1990 and the fall of 1996 demonstrate that the lowest ones on campus are those associated with the Mathematics Department (see attached report).

Percent First-Attempt Pass Rates in College Algebra (Math 104/151) and DS Reading
DS Reading and College Algebra
Fall 1992 to Fall 1997

Dr. Hamilton, OPIR, March 1998

Comment

Pass rates based on grades of 'C' or better and the total number of students who attempted a given course with grades of A, B, C , D (IP), F, WF, (U), and W. Note that the number of students who withdrew (W) from a course is included in the denominator. Grades for audit (K), credit by examination (K), and incomplete (I) were not used in the analysis. Only first-attempt grades at DSR (except the Exit DSR group) or Math courses were used in study. If a student took both Math 104 and Math 151, then only the first algebra course taken was used in the study.

$$\textit{Calculated Pass Rates} = \frac{A + B + C}{A + B + C + D + F + WF + W + (IP + U)} * 100$$

DSR Status	First Attempt at College Algebra (Math 104/151)	Attempt Math 104/151 Total N	Math 104/151 First Attempt Pass Rate* 'C' or better	Percent Withdrawals
DSR or Regular status (all students)	Math 104 - First Attempt	2,622	64.8	19.3
DSR or Regular status (all students)	Math 151 - First Attempt	2,064	56.9	25.8
Require DSR	Math 104 - First Attempt	470	57.9	23.6
Require DSR	Math 151 - First Attempt	272	40.4	35.3
Regular status (no DSR)	Math 104 - First Attempt	2,152	66.3	18.3
Regular status (no DSR)	Math 151 - First Attempt	1,792	59.4	24.3
Exit DSR before taking**	Math 104 - First Attempt	322	56.2	25.5
Exit DSR before taking	Math 151 - First Attempt	168	30.4	41.1
First Attempt at DSR along with	Math 104 - First Attempt	104	71.2	13.5
First Attempt at DSR along with	Math 151 - First Attempt	83	63.9	22.9
First Attempt at DSR after taking	Math 104 - First Attempt	6	50.0	50.0
First Attempt at DSR after taking	Math 151 - First Attempt	1	0.0	100.0

*Pass rates include grade of W

**Some students made multiple attempts at DSR before exiting

DSR Status	First Attempt at DS Reading	Attempt DS Reading Total N	DSR First Attempt Pass Rate* 'C' or better	Percent Withdrawals
DSR Required (all students)	DSR - First Attempt	1,614	67.0	8.6

*Pass rates include grades of W, IP, and U

DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or MAT 151 or *[DSR - First Attempt]*
Condition: DSR Before or DSR along with or DSR After or No DSR or *[None]*

			Grade Distributions for First-Attempt at DS Reading							
Quarter	Year	Total	A	B	C	IP	F	WF	W	U
Fall	92	180	13	88	22	37	7	3	10	
Winter	93	65	5	32	12	10	4		2	
Spring	93	40		14	13	6	4		3	
Summer	93	56	1	14	19	8	7		7	
Fall	93	62	4	40	6	5	3		3	1
Winter	94	92	10	44	7	19	5	2	5	
Spring	94	38	7	10	4	8	3	2	4	
Summer	94	60	2	24	4	21	3	1	5	
Fall	94	77	2	39	16	12	1	1	5	1
Winter	95	115	2	52	11	32	5	3	9	1
Spring	95	42		14	1	14	4	1	8	
Summer	95	51	3	23	1	13	2	1	6	2
Fall	95	74	4	37	16	11	1	2	2	1
Winter	96	121	2	47	33	18	8	1	12	
Spring	96	50	4	13	11	9	2		10	1
Summer	96	41	10	20	2	5	1		3	
Fall	96	91	8	47	17	5	3	1	10	
Winter	97	104	14	49	14	12	3	6	6	
Spring	97	42	3	20	3	7	1	2	6	
Summer	97	28	6	10	2	1	3	1	5	
Fall	97	185	42	62	27	27	7	3	17	
TOTAL: F92 to F97		1614	142	699	241	280	77	30	138	7
%Total		100.0	8.8	43.3	14.9	17.3	4.8	1.9	8.6	0.4

%Pass with >= 'C' **67.0**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151
Condition: DSR Before or DSR along with or DSR After or No DSR or *[None]*

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	128	29	39	29	13	4		14
Winter	93	133	21	33	28	20	9		22
Spring	93	99	20	17	26	10	13		13
Summer	93	57	18	17	12	6	1	2	1
Fall	93	196	41	46	44	21	16		28
Winter	94	140	21	40	38	11	7		23
Spring	94	115	19	27	18	4	10		37
Summer	94	53	13	18	5	3	3		11
Fall	94	179	24	39	53	15	7	1	40
Winter	95	157	25	34	44	8	13	1	32
Spring	95	126	18	23	21	15	13	1	35
Summer	95	36	10	9	10	2	2		3
Fall	95	193	22	48	43	32	12		36
Winter	96	173	27	39	36	12	14		45
Spring	96	108	18	20	13	5	11		41
Summer	96	35	10	5	6			1	13
Fall	96	175	34	44	37	15	13		32
Winter	97	139	21	35	32	16	11	2	22
Spring	97	143	45	48	22	1	6	2	19
Summer	97	40	7	15	9	2			7
Fall	97	197	37	60	37	13	19		31
TOTAL: F92 to F97		2622	480	656	563	224	184	10	505
	%Total	100.0	18.3	25.0	21.5	8.5	7.0	0.4	19.3
%Pass with >= 'C'		64.8							

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*
Condition: DSR Before or DSR along with or DSR After or No DSR or *[None]*

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	149	48	39	36	8	5	3	10
Winter	93	98	23	26	17	10	12		10
Spring	93	64	11	9	10	9	12		13
Summer	93	19	5	2	7	3			2
Fall	93	169	35	40	37	12	7	1	37
Winter	94	94	8	15	20	11	10	1	29
Spring	94	76	12	14	5	5	7	2	31
Summer	94	34	10	4	6		4		10
Fall	94	186	32	51	31	12	16		44
Winter	95	91	14	18	16	11	13	1	18
Spring	95	71	12	14	7	1	8		29
Summer	95	39	6	5	6		4		18
Fall	95	190	30	34	45	19	18		44
Winter	96	108	9	16	19	15	9	1	39
Spring	96	76	8	7	14	3	7	2	35
Summer	96	33	5	8	2	1	2		15
Fall	96	156	34	30	24	7	14	1	46
Winter	97	84	14	16	13	7	15	1	18
Spring	97	72	12	10	8	5	8		29
Summer	97	34	8	3	9	3	1		10
Fall	97	221	63	48	35	14	14	2	45
TOTAL: F92 to F97		2064	399	409	367	156	186	15	532
%Total		100.0	19.3	19.8	17.8	7.6	9.0	0.7	25.8

%Pass with >= 'C' **56.9**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151
Condition: DSR Before or DSR along with or DSR After or *[DSR]* or None

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	8		2	4	2			
Winter	93	25		7	8	6	1		3
Spring	93	22	5	4	4	2	5		2
Summer	93	12		4	3	1	1	2	1
Fall	93	40	4	9	5	8	5		9
Winter	94	32	3	8	11	6			4
Spring	94	23	4	6	3	1	1		8
Summer	94	10	1	4	2				3
Fall	94	41	1	8	13	4	3		12
Winter	95	20	2	5	4		3		6
Spring	95	20	1	6	6	2		1	4
Summer	95	7		1	3				3
Fall	95	41	1	5	11	7	4		13
Winter	96	21	3	1	5		3		9
Spring	96	18	2		3	1	4		8
Summer	96	4			3				1
Fall	96	27	3	6	6	2	2		8
Winter	97	23	2	8	4	3	1		5
Spring	97	32	5	15	6		1	1	4
Summer	97	3		3					
Fall	97	41	5	15	9		4		8
TOTAL: F92 to F97		470	42	117	113	45	38	4	111
%Total		100.0	8.9	24.9	24.0	9.6	8.1	0.9	23.6

%Pass with >= 'C' **57.9**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*

Condition: DSR Before or DSR along with or DSR After or *[DSR]* or None

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	11	2	5	2	1			1
Winter	93	19	2	8	4	4	1		
Spring	93	16	1	1	2	4	5		3
Summer	93	1							1
Fall	93	18	2	4	4	1	1		6
Winter	94	16		2	1	4	1	1	7
Spring	94	10				2			8
Summer	94	3	1		1				1
Fall	94	21	4	8	2	2	1		4
Winter	95	14	4	1		5	1		3
Spring	95	12			1	1	4		6
Summer	95	6			1		1		4
Fall	95	18	2	2	3	3	3		5
Winter	96	18		1	2	1	4		10
Spring	96	16	2	1	3	1			9
Summer	96	6		3			2		1
Fall	96	14	2	1	1		1		9
Winter	97	17	2	3	3	1	5		3
Spring	97	12	2	1	2	1			6
Summer	97	3	1			1			1
Fall	97	21	3	3	4	1	2		8
TOTAL: F92 to F97		272	30	44	36	33	32	1	96
%Total		100.0	11.0	16.2	13.2	12.1	11.8	0.4	35.3

%Pass with >= 'C' **40.4**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151
Condition: DSR Before or DSR along with or DSR After or *[No DSR]* or None

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	120	29	37	25	11	4		14
Winter	93	108	21	26	20	14	8		19
Spring	93	77	15	13	22	8	8		11
Summer	93	45	18	13	9	5			
Fall	93	156	37	37	39	13	11		19
Winter	94	108	18	32	27	5	7		19
Spring	94	92	15	21	15	3	9		29
Summer	94	43	12	14	3	3	3		8
Fall	94	138	23	31	40	11	4	1	28
Winter	95	137	23	29	40	8	10	1	26
Spring	95	106	17	17	15	13	13		31
Summer	95	29	10	8	7	2	2		
Fall	95	152	21	43	32	25	8		23
Winter	96	152	24	38	31	12	11		36
Spring	96	90	16	20	10	4	7		33
Summer	96	31	10	5	3			1	12
Fall	96	148	31	38	31	13	11		24
Winter	97	116	19	27	28	13	10	2	17
Spring	97	111	40	33	16	1	5	1	15
Summer	97	37	7	12	9	2			7
Fall	97	156	32	45	28	13	15		23
TOTAL: F92 to F97		2152	438	539	450	179	146	6	394
%Total		100.0	20.4	25.0	20.9	8.3	6.8	0.3	18.3
%Pass with >= 'C'		66.3							

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*
Condition: DSR Before or DSR along with or DSR After or *[No DSR]* or None

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	138	46	34	34	7	5	3	9
Winter	93	79	21	18	13	6	11		10
Spring	93	48	10	8	8	5	7		10
Summer	93	18	5	2	7	3			1
Fall	93	151	33	36	33	11	6	1	31
Winter	94	78	8	13	19	7	9		22
Spring	94	66	12	14	5	3	7	2	23
Summer	94	31	9	4	5		4		9
Fall	94	165	28	43	29	10	15		40
Winter	95	77	10	17	16	6	12	1	15
Spring	95	59	12	14	6		4		23
Summer	95	33	6	5	5		3		14
Fall	95	172	28	32	42	16	15		39
Winter	96	90	9	15	17	14	5	1	29
Spring	96	60	6	6	11	2	7	2	26
Summer	96	27	5	5	2	1			14
Fall	96	142	32	29	23	7	13	1	37
Winter	97	67	12	13	10	6	10	1	15
Spring	97	60	10	9	6	4	8		23
Summer	97	31	7	3	9	2	1		9
Fall	97	200	60	45	31	13	12	2	37
TOTAL: F92 to F97		1792	369	365	331	123	154	14	436
	%Total	100.0	20.6	20.4	18.5	6.9	8.6	0.8	24.3

%Pass with >= 'C' **59.4**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151
Condition: *[Exit DSR Before]* or DSR along with or DSR After or No DSR or None

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	48		11	14	7	6	1	9
Winter	93	24	2	3	7	3	3	1	5
Spring	93	9	1	2		1			5
Summer	93	16		2	1	3	5		5
Fall	93	20	3	7	3	1	1		5
Winter	94	28	2	6	6		2		12
Spring	94	6		2	3				1
Summer	94	12	1	1	6	1			3
Fall	94	18		6	7	2		1	2
Winter	95	20	1	4	5	2	2	1	5
Spring	95	5			1	1			3
Summer	95	12		1	3	1	2		5
Fall	95	17	2	4	4		1		6
Winter	96	19	1	4	5	2	2		5
Spring	96	13	1	4	4	1			3
Summer	96	9	1	3	3		1		1
Fall	96	18	3	3	5	2			5
Winter	97	20	2	13	2		2		1
Spring	97	5	2		1		1		1
Summer	97	3		3					
Fall	97	0							
TOTAL: F92 to F97		322	22	79	80	27	28	4	82
%Total		100.0	6.8	24.5	24.8	8.4	8.7	1.2	25.5

%Pass with >= 'C' **56.2**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*
Condition: *[Exit DSR Before]* or DSR along with or DSR After or No DSR or None

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	23	1	6	5	5	3		3
Winter	93	8			1	2	1		4
Spring	93	3	1					1	1
Summer	93	12		1	2	1	1		7
Fall	93	8		1	1	3	1		2
Winter	94	8				2	1		5
Spring	94	1	1						
Summer	94	6		1	1	1			3
Fall	94	10	2	1	1	3	1		2
Winter	95	18			1		6		11
Spring	95	2		1					1
Summer	95	6		1		1	1		3
Fall	95	11			3	2	1		5
Winter	96	16	2	2	2	1	2		7
Spring	96	3					1		2
Summer	96	6			2		1		3
Fall	96	13	3	1	2	2	3		2
Winter	97	8	1	1	3				3
Spring	97	5							5
Summer	97	1				1			
Fall	97	0							
TOTAL: F92 to F97		168	11	16	24	24	23	1	69
%Total		100.0	6.5	9.5	14.3	14.3	13.7	0.6	41.1

%Pass with >= 'C' **30.4**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151

Condition: DSR Before or *[DSR - First Attempt - along with]* or DSR After or No DSR or None

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	8		2	4	2			
Winter	93	1				1			
Spring	93	3	2	1					
Summer	93	2		1			1		
Fall	93	16	4	6	2	3			1
Winter	94	3		1	1	1			
Spring	94	0							
Summer	94	3	1	2					
Fall	94	15	1	5	3	3	1		2
Winter	95	0							
Spring	95	0							
Summer	95	2			1				1
Fall	95	17	1	3	6	1	2		4
Winter	96	3	1		2				
Spring	96	3	1		1				1
Summer	96	1			1				
Fall	96	8	1	3	1		1		2
Winter	97	1	1						
Spring	97	0							
Summer	97	0							
Fall	97	18	2	8	5				3
TOTAL: F92 to F97		104	15	32	27	11	5	0	14
%Total		100.0	14.4	30.8	26.0	10.6	4.8	0.0	13.5

%Pass with >= 'C' **71.2**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*
Condition: DSR Before or *[DSR - First Attempt - along with]* or DSR After or No DSR or None

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	11	2	5	2	1			1
Winter	93	2	1	1					
Spring	93	3		1			1		1
Summer	93	0							
Fall	93	8	1	3	2				2
Winter	94	2		1		1			
Spring	94	1							1
Summer	94	1			1				
Fall	94	17	4	7	2	1	1		2
Winter	95	3	1			1			1
Spring	95	0							
Summer	95	0							
Fall	95	10	2	1	3	2	1		1
Winter	96	2							2
Spring	96	2	1						1
Summer	96	5		3			1		1
Fall	96	6	1				1		4
Winter	97	2		1					1
Spring	97	1			1				
Summer	97	0							
Fall	97	7	2	3	1				1
TOTAL: F92 to F97		83	15	26	12	6	5	0	19
%Total		100.0	18.1	31.3	14.5	7.2	6.0	0.0	22.9

%Pass with >= 'C' **63.9**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: *[MAT 104 - First Attempt]* or MAT 151
Condition: DSR Before or DSR along with or *[DSR - First Attempt - After]* or No DSR or None

			Grade Distributions for First-Attempt at Math 104						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	0							
Winter	93	0							
Spring	93	0							
Summer	93	0							
Fall	93	0							
Winter	94	0							
Spring	94	1							1
Summer	94	0							
Fall	94	1	1						
Winter	95	0							
Spring	95	3		1					2
Summer	95	0							
Fall	95	0							
Winter	96	1		1					
Spring	96	0							
Summer	96	0							
Fall	96	0							
Winter	97	0							
Spring	97	0							
Summer	97	0							
Fall	97	0							
TOTAL: F92 to F97		6	1	2	0	0	0	0	3
	%Total	100.0	16.7	33.3	0.0	0.0	0.0	0.0	50.0

%Pass with >= 'C' **50.0**

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DS Reading and Grade Distributions in College Algebra (Math 104/151)
Fall 1992 to Fall 1997

OPIR, Dr. Hamilton, March 1998

Course Name: MAT 104 or *[MAT 151 - First Attempt]*
Condition: DSR Before or DSR along with or *[DSR - First Attempt - After]* or No DSR or None

			Grade Distributions for First-Attempt at Math 151						
Quarter	Year	Total	A	B	C	D	F	WF	W
Fall	92	0							
Winter	93	0							
Spring	93	0							
Summer	93	0							
Fall	93	0							
Winter	94	0							
Spring	94	0							
Summer	94	0							
Fall	94	0							
Winter	95	0							
Spring	95	0							
Summer	95	0							
Fall	95	0							
Winter	96	0							
Spring	96	0							
Summer	96	0							
Fall	96	1							1
Winter	97	0							
Spring	97	0							
Summer	97	0							
Fall	97	0							
TOTAL: F92 to F97		1	0	0	0	0	0	0	1
%Total		100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

%Pass with >= 'C' **0.0**

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